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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,750	06/18/2001	Michael J. Suman	026032-3084	1739

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FOLEY & LARDNER
777 EAST WISCONSIN AVENUE
SUITE 3800
MILWAUKEE, WI 53202-5308

EXAMINER	
DALENCOURT, YVES	
ART UNIT	**PAPER NUMBER**
2635	5

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/883,750	SUMAN ET AL.	
	Examiner	Art Unit	
	Yves Dalencourt	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This office action is responsive to communication filed on 06/18/01.

Specification

Please delete " 001.1008604.01 " (page 20, line 15 in the abstract).

Claim Objections

Claims 12 and 17 are objected to because of the following informalities: It is suggested to delete " commands " (claims 12 and 17, line 2) and insert – command --. A " commands " has not previously been identified in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 – 4, 6 – 10, 12 - 16, and 18 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenneth E. Flick (US 6392534; hereinafter Flick) in view of Crimmins et al (US 6181255; hereinafter Crimmins).

Regarding claims 1, 4, and 9, Flick teaches a receiver (24, figure 1) for use in a vehicle for communicating between an actuator (26, 27, 32, figure 1) disposed within the vehicle for controlling the operation of a vehicle feature and a remote device (50, figure 1), the receiver comprising an antenna for receiving a wireless signal (see receiving antenna in figure 1), the wireless signal generated by the remote device and including a control command (figure 1; col. 5, lines 22 - 42); a controller coupled to said antenna (23, figure 1); wherein the controller is configured to enter a learning mode (col. 8, lines 17 – 27).

Flick teaches all the limitations, but fails to specifically teach that the controller polls a plurality of wireless frequencies to detect the wireless signal, wherein the controller is configured to receive and interpret the control command on the wireless signal and to communicate the control command to the actuator for execution (claim 1); wherein the antenna is a dynamically tunable antenna (claim 4); and wherein said receiver and said remote control device communicate in the frequency range of 900 MHz to 1000 MHz (claim 9).

However, Crimmins teaches, in the same field of endeavor, a multi-frequency radio frequency transmitter with code learning capability which comprises a controller polls a plurality of wireless frequencies to detect the wireless signal (col. 3, lines 14 - 34), wherein the controller is configured to receive and interpret the control command on the wireless signal and to communicate the control command to the actuator for execution (col. 4, lines 46 – 56; col. 6, lines 33 - 36); wherein the antenna is a dynamically tunable antenna (col. 4, lines 27 - 40); and wherein said receiver and said remote control device communicate in the radio frequency spectrum (col. 10, lines 36 – 38; inherently incorporated the claimed frequency range of 900 MHz to 1000 MHz).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a controller which polls a plurality of wireless frequencies to detect the wireless signal, wherein the controller is configured to receive and interpret the control command on the wireless signal and to communicate the control command to the actuator for execution in Flick's device as evidenced by Crimmins because Flick teaches a controller that may be switched to a transmitter learning mode for permitting the addition of new uniquely coded remote transmitters and Crimmins further teaches the idea of polling frequencies to detect the wireless signal to perform control commands for the purpose of providing a system which learns and transmits coded signals at multiple frequencies without the cost and complexity of prior system (see col. 2, lines 25 – 28).

Regarding claim 2, Flick and Crimmins teach all the limitations on claim 1, and Flick further teaches a receiver which is configured for wireless transmission (col. 10, lines 40 - 42).

Regarding claim 3, Flick and Crimmins teach all the limitations on claim 1, and Flick further teaches a receiver, wherein the remote device (50) is substantially free of wiring to a vehicle control bus (50, figure 1; col. 5, lines 36 – 40).

Regarding claim 6, Flick and Crimmins teach all the limitations on claim 1, and Flick further teaches a receiver, wherein the controller is electrically coupled to the actuator via a bus (22, figure 1; col. 5, lines 29 - 35).

Regarding claim 7, Flick and Crimmins teach all the limitations on claim 1, and Flick further teaches a receiver, wherein the bus includes a multiplexed automotive instrumentation network (col. 2, lines 4 – 51).

Regarding claim 8, Flick and Crimmins teach all the limitations on claim 1, and Flick further teaches a receiver, wherein said multiplexed automotive instrumentation network operates under the J1850 standard (col. 2, lines 49 - 58).

Regarding claim 10, Flick teaches a method of controlling an actuator within a vehicle (26, 27, 32, figure 1) with an RF signal from a remote device (50, figure 1), the RF signal having a control command, the method comprising the steps of receiving the control command from the remote control device via the RF signal (24, figure 1; col. 5, lines 22 - 28); and providing the control command to the actuator disposed within the vehicle for controlling the operation of a vehicle feature (figure 1; col. 5, lines 29 - 51).

Flick teaches all the limitations, but fails to specifically teach the steps of polling a plurality of frequencies to locate a frequency of the RF signal.

However, Crimmins teaches, in the same field of endeavor, a multi-frequency radio frequency transmitter with code learning capability, which comprises the steps of polling a plurality of frequencies to locate a frequency of the RF signal (col. 3, lines 14 – 34).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the steps of polling a plurality of frequencies to locate a frequency of the RF signal in Flick's device as evidenced by Crimmins because Flick teaches a controller that may be switched to a transmitter learning mode for permitting the addition of new uniquely coded remote transmitters and Crimmins further teaches the idea of polling frequencies to locate a frequency of the RF signal for the purpose of providing a system which learns and transmits coded signals at multiple frequencies without the cost and complexity of prior system (see col. 2, lines 25 – 28).

Regarding claim 12, Flick and Crimmins teach all the limitations on claim 10, and Flick further teaches the steps of providing the control commands that includes providing the control command over a bus to the actuator (22, figure 1; col. 5, lines 29 - 35).

Regarding claim 13, Flick and Crimmins teach all the limitations on claim 12, and Flick further teaches that the bus is an automotive multiplex network (col. 2, lines 4 - 51).

Regarding claims 14 and 20, Flick teaches an RF control system in a vehicle (figure 1) comprising a trainable transceiver (20, figure 1) including memory, the memory storing at least one communication protocol (col. 9, lines 3 – 47), and a communications interface to a control bus in the vehicle (col. 6, lines 8 - 23); an antenna electrically coupled to said trainable transceiver (see figure 1; element attached to receiver 24); a remote device (50, figure 1) generating an RF signal, the trainable transceiver configured to receive the RF signal (24, figure 1; col. 5, lines 22 - 28); wherein said trainable transceiver receives a control command from said remote device, via the RF signal, and transfers the control command to the control bus of the vehicle to be executed (figure 1; col. 5, lines 29 - 51); wherein the controller is configured to enter a learning mode (col. 8, lines 17 – 27).

Flick teaches all the limitations, but fails to specifically teach that the trainable transceiver polls a plurality of RF frequencies to detect the RF signal and establish communication with the remote device (claim 14); and wherein the trainable transceiver and the remote control device communicate in the frequency range of 900 MHz to 1000 MHz (claim 20).

However, Crimmins teaches, in the same field of endeavor, a multi-frequency radio frequency transmitter with code learning capability which comprises a trainable transceiver polls a plurality of RF frequencies to detect the RF signal and establish communication with the remote device (col. 3, lines 14 - 34); and wherein said receiver and said remote control device communicate in the radio frequency spectrum (col. 10,

lines 36 – 38; inherently incorporated the claimed frequency range of 900 MHz to 1000 MHz).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a controller polls a plurality of wireless frequencies to detect the wireless signal, wherein the controller is configured to receive and interpret the control command on the wireless signal and to communicate the control command to the actuator for execution in Flick's device as evidenced by Crimmins because Flick teaches a controller that may be switched to a transmitter learning mode for permitting the addition of new uniquely coded remote transmitters and Crimmins further teaches the idea of polling frequencies to detect the RF signal to perform control commands for the purpose of providing a system which learns and transmits coded signals at multiple frequencies without the cost and complexity of prior system (see col. 2, lines 25 – 28).

Regarding claim 15, Flick and Crimmins teach all the limitations on claim 14, and Flick further teaches a control system, wherein the trainable transceiver includes transmission capabilities (col. 10, lines 40 - 42).

Regarding claim 16, Flick and Crimmins teach all the limitations on claim 14, and Flick further teaches a control system, wherein the remote device is free of wiring to the control bus and mounted to the vehicle interior (50, figure 1; col. 5, lines 36 – 40).

Regarding claim 18, Flick and Crimmins teach all the limitations on claim 14, and Flick further teaches a control system, wherein the control bus of the vehicle includes a multiplexed automotive instrumentation network (col. 2, lines 4 – 51).

Regarding claim 19, Flick and Crimmins teach all the limitations on claim 18, and Flick further teaches a control system, wherein the multiplexed automotive instrumentation network operates under the J1850 standard (col. 49 - 58).

Claims 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenneth E. Flick (US 6392534; hereinafter Flick) in view of Crimmins et al (US 6181255; hereinafter Crimmins) and further in view of Hayden et al (US 6198244; hereinafter Hayden).

Regarding claim 5, Flick and Crimmins teach all the limitations on claim 1, but fail to specifically teach an actuator, which is a seat heater controlled by said remote device.

However, Hayden teaches, in the same field of endeavor, an electronic architecture for controlling a motor vehicle seat, which comprises an actuator, which is a seat heater controlled by said remote device (figure 7; col. 2, lines 8 – 11; col. 6, lines 49 – 60).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used an actuator, which is a seat heater controlled by said remote device in Flick and Crimmins's device as evidenced by Hayden because Flick and Crimmins teach controlling doors and trunk of a vehicle and Hayden further teaches a seat heater controlled by said remote device for the purpose of sharply reducing the volume and mass of the mechanism resulting in further economies (col. 2, lines 21 – 24).

Regarding claim 11, Flick and Crimmins teach all the limitations on claim 10, but fail to specifically teach that the control command is a vehicle seat control command.

However, Hayden teaches, in the same field of endeavor, an electronic architecture for controlling a motor vehicle seat, which comprises a control command, which is a vehicle seat control command (figure 7; col. 2, lines 8 – 11; col. 6, lines 49 – 60).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a control command, which is a vehicle seat control command in Flick and Crimmins's device as evidenced by Hayden because Flick and Crimmins teach controlling doors and trunk of a vehicle and Hayden further teaches a control command, which is a vehicle seat control command for the purpose of sharply reducing the volume and mass of the mechanism resulting in further economies (col. 2, lines 21 – 24).

Regarding claim 17, Flick and Crimmins teach all the limitations on claim 14, but fail to specifically teach an actuator, which is a seat heater controlled by said remote device.

However, Hayden teaches, in the same field of endeavor, an electronic architecture for controlling a motor vehicle seat, wherein the control bus is coupled to a seat heater, the control commands actuating the seat heater (figure 7; col. 2, lines 8 – 11; col. 6, lines 49 – 60).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a control bus, which is coupled to a seat heater, the control commands actuating the seat heater in Flick and Crimmins's device as evidenced by Hayden because Flick and Crimmins teach controlling doors and trunk of a vehicle and Hayden further teaches a seat heater controlled by said remote device for the purpose of sharply reducing the volume and mass of the mechanism resulting in further economies (col. 2, lines 21 – 24).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yves Dalencourt whose telephone number is (703) 308-8547. The examiner can normally be reached on M-TH 7:30AM - 6: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Yves Dalencourt
Dalencourt
October 13, 2003